IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No.: 7330
Mauler-Machnik *et al.*	Art Unit: 1616
Appl. No.: 10/576,181	Examiner: Brooks, Kristie L.
Filed: July 26, 2006	

For: **Fungicidal Active Combinations Spiroxamine, Prothioconazole and Tebuconazole**

Declaration of Peter Dahmen Under 37 C.F.R. §1.132

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

I, Peter Dahmen, of Altebrücker Str. 61, 41470 Neuss, Germany, a citizen of

Germany, hereby declare:

1.   that I am a biologist having studied at the University of Bonn, Germany;

2.   that I received the degree of Dr. agr. at the University of Bonn, Germany;

3.   that I entered the employ of Bayer Aktiengesellschaft, Leverkusen, in 1991,

where I have been employed in the department of Biology Herbicides, that after the spin-off from

Bayer CropScience AG I am now employee of this company in the department of Biology Fun-

gicides;

4.   that I have specialized in the field of fungicide research;

5.   that the following tests have been carried out under my supervision and control.

Biological Tests

A synergistic effect in fungicides is always present when the fungicidal action of the active compound combinations exceeds the expected action of the active compounds.

The expected fungicidal action for a given combination of two or three active compounds can be calculated as follows, according to S.R. Colby ("Calculating Synergistic and Antagonistic Responses of Herbicide Combinations", Weeds 1967, 15, 20-22):

If

X   is the efficacy when employing active compound A at an application rate of m g/ha,

Y   is the efficacy when employing active compound B at an application rate of n g/ha,

Z   is the efficacy when employing active compound C at an application rate of r g/ha,

E   is the efficacy when employing active compounds A and B and C at application rates of m and n and r g/ha,

then is

$$E = X + Y + Z - \left(\frac{X \cdot Y + X \cdot Z + Y \cdot Z}{100} \right) + \frac{X \cdot Y \cdot Z}{10000}$$

Here, the efficacy is determined in %. 0 % means an efficacy which corresponds to that of the control, whereas an efficacy of 100 % means that no infection is observed.

If the actual fungicidal action exceeds the calculated value, the action of the combination is superadditive, i.e. a synergistic effect is present. In this case, the actually observed efficacy must exceed the value calculated using the above formula for the expected efficacy (E).

Puccinia triticina test (wheat) / preventive

Solvent:	49	parts by weight of n,n-dimethylacetamid
Emulsifier:	1	part by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound or active compound combination is mixed with the stated amounts of solvent and emulsifier, and the concentrate is diluted with water to the desired concentration.

To test for preventive activity, young plants are sprayed with the preparation of active compound or active compound combination at the stated rate of application.

After the spray coating has been dried, the plants are sprayed with a spore suspension of *Puccinia triticina*. The plants remain for 48 hours in an incubation cabinet at approximately 20°C and a relative atmospheric humidity of approximately 100 %.

The plants are placed in the greenhouse at a temperature of approximately 20°C and a relative atmospheric humidity of approximately 80 %.

The test is evaluated 8 days after the inoculation. 0% means an efficacy which corresponds to that of the control, while an efficacy of 100% means that no disease is observed.

Results: *Puccinia triticina* test (wheat) / preventive

Active compounds	Mixture ratio	Application rate of active compound in g/ha	Efficacy in %	
			found*	calc.**
Tebuconazole		25	75	
Prothioconazole		25	13	
Spiroxamine		25	13	
Tebuconazole + Prothioconazole + Spiroxamine	1 : 1 : 1	25 + 25 + 25	88	81

*   found   = activity found
**   calc.   = activity calculated using Colby's formula

Active compounds	Mixture ratio	Application rate of active compound in g/ha	Efficacy in %	
			found*	calc.**
Tebuconazole		25	75	
Prothioconazole		25	13	
Spiroxamine		5	0	
Tebuconazole + Prothioconazole + Spiroxamine	5 : 5 : 1	25 + 25 + 5	88	78

*   found   = activity found
**   calc.   = activity calculated using Colby's formula

Active compounds	Mixture ratio	Application rate of active compound in g/ha	Efficacy in %	
			found*	calc.**
Tebuconazole		25	75	
Prothioconazole		50	13	
Spiroxamine		250	0	
Tebuconazole + Prothioconazole + Spiroxamine	0,1 : 0,2 : 1	25 + 50 + 250	88	78

*   found   = activity found
**   calc.   = activity calculated using Colby's formula

Reply to Office Action of August 6, 2009

Mauler-Machnik *et al.*
Appl. No. 10/576,181

The undersigned declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed at Monheim, Germany,

November 25, 2009
_____
Date

Dr. Peter Dahmen